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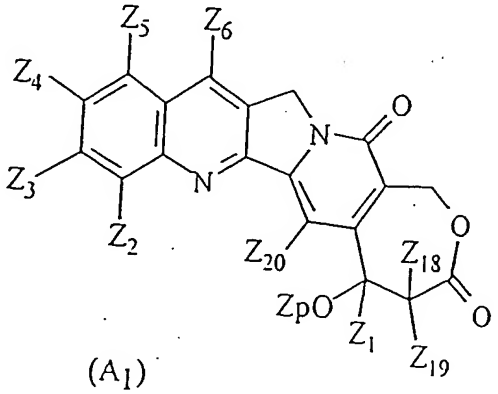
AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended)

A compound of the formula



(A_I)

in racemic or enantiomeric form or any combination of these forms, wherein

Z_1 is a member selected from the group consisting of lower alkyl, lower alkenyl, lower alkynyl, lower haloalkyl, lower alkoxy lower alkyl and lower alkylthio lower alkyl;

Z_2, Z_3, Z_4, Z_5 and Z_6 are independently a member selected from the group consisting of,

i) H, halo, lower haloalkyl, alkyl of 1 to 12 carbon atoms unsubstituted or substituted by at least one halo, lower alkenyl, cycloalkyl, cycloalkyl lower alkyl, cyano, lower cyanoalkyl, nitro, lower nitroalkyl, amido, lower amidoalkyl, hydrazino, lower hydrazinoalkyl, azido, lower azidoalkyl, lower alkyl lower sulphonylalkyl, $-(CH_2)_mNZ'_6Z'_7$, $-(CH_2)_mOZ'_6$,

$-(CH_2)_m-SZ'_6$, $-(CH_2)_mCO_2Z'_6$, $-(C\ H_2)_mNZ'_6C(O)Z_8$, $-(CH_2)_mC(O)Z_8$, $-(CH_2)_mOC(O)Z_8$, $-O-(CH_2)_mNZ'_6Z'_7$, $-OC(O)NZ'_6Z'_7$, $-OC(O)\ (CH_2)_mCO_2Z'_6$, $-OSO_2Z_7$, $-(CH_2)_mN(CH_3)_nNZ'_6Z'_7$, $-(CH_2)_mOC(O)NZ'_6Z'_7$, $-(CH_2)_mS(O)_qZ_{11}$, $-(CH_2)_mP(O)Z_{12}Z_{13}$, $-(CH_2)_2P(S)Z_{12}Z_{13}$, $--(CH_2)_mSiZ'_{11}Z'_{12}Z'_{13}$; or **ii)** $-(CH_2)_n[N=X]$, $-OC(O)[N=X]$, $-(CH_2)_mOC(O)[N=X]$, aryl and lower arylalkyl, each unsubstituted or substituted with 1 to 4 members on the aryl or the heterocycle selected from the group consisting of lower alkyl, lower arylalkyl, halo, hydroxy, $-OCF_3$, nitro, amino, lower alkylamino, di(lower alkyl) amino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl or **iii)** Z_3 and Z_4 or Z_4 and Z_5 form together a chain of 3 or 4 members in which the elements of the chain are selected from the group consisting of CH, CH_2, O, S, N or NZ_9;

Z_7 is a member selected from the group consisting of lower alkyl unsubstituted or substituted by at least one halo, aryl unsubstituted or substituted by at least one lower alkyl;

Z'_6 and Z'_7 are independently a member selected from the group consisting of **i)** H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy lower alkyl and haloalkyl, or **ii)** aryl or lower arylalkyl, each unsubstituted or substituted on the aryl with 1 to 4 members selected from

the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z_8 is a member selected from the group consisting of i) H, lower alkyl, lower hydroxyalkyl, amino, lower alkylamino, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy, lower alkoxy lower alkyl and lower haloalkyl, or **ii)** aryl or lower each arylalkyl unsubstituted or substituted on the aryl with 1 to 4 members selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl ;

Z_9 is a member selected from the group consisting of i) H, lower alkyl, lower haloalkyl, or **ii)** aryl and lower arylalkyl each unsubstituted or substituted with a member selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z_{10} is a member selected from the group consisting of i) H, lower alkyl, lower haloalkyl and lower alkoxy, or **ii)** aryl unsubstituted or substituted on the aryl with a member selected from the group consisting of lower alkyl, lower haloalkyl, lower hydroxyalkyl and lower alkoxy lower alkyl;

Z_{11} is a member selected from the group consisting of lower alkyl, aryl, $-(CH_2)_mOZ_{14}$, $-(CH_2)_mSZ_{14}$, $-(CH_2)_2NZ_{14}Z_{15}$ and $(CH_2)_m[N=X]$;

Z_{12} and Z_{13} are independently members selected from the group consisting of lower alkyl, aryl, lower alkoxy, aryloxy and amino;

Z'_{11}, Z'_{12} and Z'_{13} are independently a member selected from the group consisting of H or lower alkyl;

Z_{14} and Z_{15} are independently a member selected from the group consisting of H, lower alkyl and aryl;

Z_{18} and Z_{19} are independently a member selected from the group consisting of H, halo, lower alkyl, lower alkoxy and hydroxy;

Z_{20} is H or halo;

Z_p is a member selected from the group consisting of H or an easily cleavable group ~~preferably~~ chosen from the groups corresponding to the formula $-C(O)-A-NZ_{22}Z_{23}$ in which A represents a linear or branched alkylene unsubstituted or substituted by a member selected from the group consisting of free, esterified or salified hydroxy, halogen, free, esterified or salified carboxy, amino, mono and dialkyolamino;

Z_{22} and Z_{23} are independently a member selected form the group consisting of **i)** H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl,, lower alkenyl, lower alkoxy lower alkyl, lower haloalkyl, or **ii)** aryl or lower arylalkyl <u>each</u> unsubstituted or substituted on the aryl with 1 to 4 members selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino,

lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

m is an integer between 0 and 6;

n is 1 or 2; and

q is an integer from 0 to 2; and

[N=X] is a heterocyclic group with 4 to 7 ring members with the nitrogen atom ~~which~~ a member of the heterocyclic ring, and X is the chain necessary to complete said heterocyclic group and selected from the group consisting of O, S, CH_2, CH, N, NZ_9 and $C(O)Z_{10}$;

or its pharmaceutically acceptable salt.

Claim 2 (currently amended)

A compound of claim 1, in racemic or enantiomeric form or any combinations of these forms, wherein

Z_1 is a member selected from the group consisting of lower alkyl, lower alkenyl, lower alkynyl, lower haloalkyl, lower alkoxy lower alkyl and lower alkylthio lower alkyl;

Z_2 is a member selected from the group consisting of H, halo and $-OSO_2Z_7$;

Z_3, Z_4 and Z_5 are independently a member selected from the group consisting of i) H, halo, lower haloalkyl, lower alkyl, lower alkenyl, cyano, lower cyanoalkyl, nitro, lower nitroalkyl, amido, lower amidoalkyl, hydrazino, lower hydrazinoalkyl, azido, lower azidoalkyl, $-(CH_2)_mNZ'_6Z'_7$, $-(CH_2)_mOZ'_6$, $-(CH_2)_mSZ'_6$, $-(CH_2)_mCO_2Z'_6$, $-(CH_2)_mNZ'_6C(O)Z_8$, $-(CH_2)_mC(O)Z_8$, $-(CH_2)_mOC(O)Z_8$, $-O(CH_2)_mNZ'_6Z'_7$, $-OC(O)NZ'_6Z'_7$, $-OC(O)(CH_2)_mCO_2Z'_6$ and $-OSO_2Z_7$ or ii) $-(CH_2)_n[N=X]$, $-OC(O)[N=X]$, $-(CH_2)_mOC(O)[N=X]$ wherein [N=X] is a heterocyclic group with 4 to 7 ring members with the nitrogen atom, which is a member of the heterocyclic group, and X is the remaining members, which are necessary to complete the heterocyclic group, selected from the group consisting of O, S,

CH_2, CH, N, NZ_9 and COZ_{10}, aryl or lower arylalkyl, each unsubstituted or substituted on the aryl or the heterocycle with 1 to 4 members selected from the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl, or **iii)** Z_3 and Z_4 or Z_4 and Z_5 form together a chain with 3 to 4 members in which the elements of the chain are selected from the group consisting of CH, CH_2, O, S, N and NZ_9;

Z_6 is a member selected from the group consisting of **i)** H, halo, lower haloalkyl, alkyl containing 1 to 12 carbon atoms, unsubstituted or substituted by at least one halo, lower alkoxy, lower alkoxy lower alkyl, lower alkylthio lower alkyl, cycloalkyl, cycloalkyl lower alkyl, cyano, cyanoalkyl, lower alkyl lower sulfonylalkyl, lower hydroxyalkyl, nitro, -$(CH_2)_mC(O)Z_8$, -$(CH_2)_mNZ'_6C(O)Z_8$, -$(CH_2)_mNZ'_6Z'_7$, -$(CH_2)_mN(CH_3)(CH_2)_nNZ'_6Z'_7$, -$(CH_2)_mOC(O)Z_8$, -$(CH_2)_mOC(O)NZ'_6Z'_7$, -$(CH_2)_mS(O)_qZ_{11}$, -$(CH_2)_mP(O)Z_{12}Z_{13}$, -$(CH_2)_2P(S)Z_{12}Z_{13}$, and –$(CH_2)_mSiZ'_{11}Z'_{12}Z'_{13}$; or **ii)** –$(CH_2)_n$[N=X], -OC(O) [N=X], -$(CH_2)_mOC(O)$ [N=X], each unsubstituted or substituted on the heteroaryl with 1 to 4 members of the group consisting of lower alkyl, lower

arylalkyl, halo, hydroxyl, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl; or **iii)** aryl or lower arylalkyl, each unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkylo, aralkyl halo, hydroxy, nitro, $-OCF_3$, amino, lower alkylamino, di(lower alkyl)amino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z_7 is a member selected from the group consisting of lower alkyl unsubstituted or substituted by at least one halo, ~~or~~ and aryl unsubstituted or substituted by at least one lower alkyl;

Z'_6 and Z'_7 are independently a member selected from the group consisting of **i)** H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy lower alkyl and lower haloalkyl, or **ii)** aryl or lower arylalkyl each unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z_8 is a member selected from the group consisting of **i)** H, lower alkyl, lower hydroxyalkyl, amino, lower alkylamino, lower alkyl lower aminoalkyl, lower aminoalkyl cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy, lower alkoxy lower alkyl and lower haloalkyl, or **ii)** aryl or lower arylalkyl, each unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z_9 is a member selected from the group consisting of **i)** H, lower alkyl and lower haloalkyl or **ii)** aryl or lower arylalkyl, each unsubstituted or substituted with a member of the group consisting of lower alkyl, halo, nitro, amino, lower alkyloamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

Z_{10} is a member selected from the group consisting of **i)** H, lower alkyl, lower haloalkyl and lower alkoxy, or **ii)** aryl unsubstituted or substituted on the aryl with 1 to 4 members of the group consisting of lower alkyl, lower haloalkyl, lower hydroxyalkyl and lower alkoxy lower alkyl;

Z_{11} is a member selected from the group consisting of lower alkyl, aryl, $-(CH_2)_m OZ_{14}$, $-(CH_2)_mSZ_{14}$, $-(CH_2)_2NZ_{14}Z_{15}$ and $-(CH_2)_m[N=X]$;

Z_{12} and Z_{13} are independently a member selected from the group consisting of lower alkyl, aryl, lower alkoxy, aryloxy and amino;

Z'_{11}, Z'_{12} and Z'_{13} are independently H or lower alkyl;

Z_{14} and Z_{15} are independently a member selected from the group consisting of H, lower alkyl and aryl;

Z_{18} and Z_{19} are independently a member selected from the group consisting of H, halo, lower alkyl, lower alkoxy and hydroxyl;

Z_{20} is H or halo;

Z_p represents H or an easily cleavable group of the formula $-C(O)-A-NZ_{22}Z_{23}$, wherein A is alkylene unsubstituted or substituted by a member selected from the group consisting of free, esterified or salified hydroxyl, halogen, free, esterified or salified carboxy, amino and mono and dialkylamino;

Z_{22} and Z_{23} are independently a member selected from the group consisting of **i)** H, lower alkyl, lower hydroxyalkyl, lower alkyl lower aminoalkyl, lower aminoalkyl, cycloalkyl, cycloalkyl lower alkyl, lower alkenyl, lower alkoxy lower alkyl, lower haloalkyl, or **ii)** aryl or lower arylalkyl, each unsubstituted or substituted by 1 to 4 members of the group consisting of lower alkyl, halo, nitro, amino, lower alkylamino, lower haloalkyl, lower hydroxyalkyl, lower alkoxy and lower alkoxy lower alkyl;

m is an integer between 0 and 6; and

n is 1 or 2; and

q is an integer from 0 to 2; and

[N=X] is a heterocyclic group with 4 to 7 ring members

with the nitrogen atom which is a member of the heterocyclic ring, and X is the chain necessary to complete said heterocyclic group and is selected from the group consisting of O, S, CH_2, CH, N, NZ_9 and COZ_{10};

or a pharmaceutically acceptable salt thereof.

Claim 3 (previously presented)

A compound of claim 1 wherein Z_2 is H or halo or a pharmaceutically acceptable salt thereof.

Claim 4 (previously presented)

A compound of claim 1 wherein Z_3 is halo; or a pharmaceutically acceptable salt thereof.

Claim 5 (currently amended)

A compound of claim 1 wherein

Z_1 is lower alkyl;

Z_2 is H or halo;

Z_3 Z_4 and Z_5 are independently a member selected from the group consisting of

i) H, halo, lower alkyl, $-(CH_2)_mNZ'_6Z'_7$, $-(CH_2)_mOZ'_6$ and $-OSO_2Z_7$

Or

ii) $-(CH_2)_n[N=X]$ or

iii) Z_3 and Z_4 or Z_4 and Z_5 form together a chain with 3 or 4 members in which the elements of the chain are selected from the group

consisting of CH, CH_2, O, S, N and NZ_9;

Z_6 is a member selected from the group consisting of **i)** H, halo, alkyl of 1 to 12 carbon atoms unsubstituted or substituted by at least one halo, lower alkoxy lower alkyl, cycloalkyl, cycloalkyl lower alkyl, lower hydroxyalkyl, $-(CH_2)_mNZ'_6Z'_7$ and $-(CH_2)_mSiZ'_{11}Z'_{12}Z'_{13}$; or **ii)** $-(CH_2)_n[N=X]$ unsubstituted or substituted with lower alkyl or lower arylalkyl or **iii)** aryl or lower arylalkyl, each unsubstituted or substituted with a member selected from the group consisting of lower alkyl, halo, $-OCF_3$, di(lower alkyl)amino and lower haloalkyl;

Z_7 is lower alkyl unsubstituted or substituted by at least one halo;

Z'_6 and Z'_7 are independently **i)** H, or lower alkyl, or **ii)** lower arylalkyl;

Z_9 is lower alkyl or lower arylalkyl;

Z'_{11}, Z'_{12} and Z'_{13} are independently lower alkyl;

Z_{18} and Z_{19} are independently H or halo;

Z_{20} is H;

Z_p is H or $-C(O)-A-N_{22}Z_{23}$, in which A is alkylene unsubstituted or substituted by a member selected from the group consisting of free, esterified or salified hydroxy, halogen, free, esterified or salified carboxy, amino and mono and dialkylamino radicals;

Z_{22} and Z_{23} are independently H or lower alkyl;

m is an integer between 0 and 6;

n is 1 or 2; and

q is an integer from 0 to 2; and

[N=X] is a heterocyclic group with 4 to 7 ring members, X is the chain necessary to complete said heterocyclic group and is selected from the group consisting of O, CH_2, CH, N and NZ_9;

or a pharmaceutically acceptable salt thereof.

Claim 6 (previously presented)

A compound of claim 1 wherein Z_{18}, Z_{19} and Z_{20} are H; or a pharmaceutically acceptable salt thereof.

Claim 7 (previously presented)

A compound of claim 1 wherein Z_1 is ethyl or a pharmaceutically acceptable salt thereof.

Claim 8 (previously presented)

A compound of claim 1 wherein Z_p is $-C(O)\text{-}A\text{-}NZ_{22}Z_{23}$ or a pharmaceutically acceptable salt thereof.

Claim 9 (previously presented)

A compound of claim 1 wherein Z_p is H or a pharmaceutically acceptable salt thereof.

Claims 10 and 11 (cancelled)

Claim 12 (previously presented)

A compound of claim 1 wherein Z_6 is $-(CH_2)_mSiZ'_{11}Z'_{12}Z'_{13}$ or a pharmaceutically acceptable salt thereof.

Claim 13 (previously presented)

A compound of claim 1 selected from the group consisting of:

(5R)-5-ethyl-9,10-difluoro-5-hydroxy-12-(2-trimethylsilylethyl)-4,5,13,15-tetrahydro-1H,3H-oxepino[3',4': 6,7] indolizino[1,2-b]quinoline-3,15-dione; and

(5R)-5-ethyl-5-hydroxy-12-(2-trimethylsilylethyl)-4,5,13,15-tetrahydro-1H,3H-oxepino [3',4': 6,7]indolizino[1,2-b]quinoline-3,15-dione.

Claim 14 (previously presented)

A compound of claim 1 wherein Z_2 is H or halo, Z_3 is halo, Z_4 is a member selected from the group consisting of H, halo and lower alkyl, Z_5 is H or halo, and Z_6 is a member selected from the group consisting of H, lower alkyl and $-(CH_2)_n[N=X]$ substituted with lower alkyl or a pharmaceutically acceptable salt thereof.

Claim 15 (previously presented)

A compound of claim 1 selected from the group consisting of:

(5R)-5-ethyl-9,11-difluoro-5-hydroxy-4,5,13,15-tetrahydro-1H,3H-oxino[3',4' : 6,7] indolizino[1,2-b]quinoline-3,15-dione; and

(5R)-5-ethyl-9,11-difluoro-5-hydroxy-12-propyl-4,5,13,15-tetrahydro-1H,3H-oxepino [3',4' : 6,7]indolizino[1,2-b]quinoline-3,15-dione; ~~and~~ or a pharmaceutically acceptable salt thereof.

Claim 16 (cancelled)

Claims 17 to 27 (cancelled)